

Amanda Ziegler

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Education

University of Hawaii at Manoa, Honolulu, HI

PhD Biological Oceanography

Expected 2017

Dr. Craig Smith – Benthic Ecology

Relevant course work to date:

- Benthic Biological Oceanography, Geological Oceanography, Geomathematics, Chemical Oceanography, Physical Oceanography, Marine Microplankton Ecology, Earth System Science and Global Change, Ecology of Pelagic Marine Animals, Biological-Physical Interactions

Research interests:

- Diversity and ecology of benthic invertebrates in Antarctic fjord systems
- Connectivity of megafauna
- Deep sea ecology

Current GPA: 3.75

University of Rhode Island, Kingston, RI

B.S. Marine Biology, Minor in Chemistry

2008- 2012

GPA: 3.78 - Summa Cum Laude

Relevant course work:

- Marine Biology, Marine Ecology, Ecology of Marine Plants, Deep Sea Biology, Environmental Physiology, Marine Pollution, Community Ecology, Marine Invertebrate Zoology

Honors, Scholarships and Professional Memberships

University of Hawai'i at Mānoa

Geological Society of America member, 2014

Society of Integrative and Comparative Biology member, 2014

University of Rhode Island (URI)

URI Centennial Scholarship, 2008-2012 (\$8000 per year)

URI Undergraduate Research Initiative Grant, 2012 (\$1000)

Elmer A. Palmatier Memorial Scholarship, 2012 (\$400)

URI Coastal Fellowship, 2009 - best poster award

Golden Key International Honor Society member, 2010 - present

Employment and Research Experience

Research Assistant, ABYSSLINE Project, Craig Smith (PI)

University of Hawai'i at Mānoa

January 2014 – Present

- Analyze ROV footage from CCFZ in UK claim area (manganese nodule mining) for megafaunal diversity and abundance
- Determine connectivity of CCFZ megafauna to assess mining impact to fauna

Teaching Assistant, OCN 201: Introduction to Oceanography Laboratory

University of Hawai'i at Mānoa

August 2012-December 2013

- Prepare and revise laboratory activities weekly for 20 undergraduate students
- Present background material in short lectures and assist during lab activities
- Evaluate students through laboratory worksheets, quizzes, essays, presentations
- Coordinate educational class field trips

Laboratory Assistant, URI Ecology Laboratory

University of Rhode Island, Dr. Carol Thornber

September 2011 - May 2012

- Conducted collaborative research project involving algal colonization to determine overwintering strategy of bloom-forming local species
- Wrote undergraduate research grant to conduct research using stable isotopes in bloom-forming algal species in collaboration with US EPA researcher
- Conducted intertidal and subtidal algae surveys at various sites in RI at monthly intervals establishing a long-term dataset for the region.
- Processed collected algae (wet weight, grind in preparation for MS)

Laboratory Technician, URI Watershed Watch

Coastal Institute, URI, Kingston, RI

December 2009 - July 2011

- Prepared and analyze water samples, general lab maintenance, data entry using Excel
- Worked closely with and trained volunteers and student employees
- Consistently used Turner Designs TD-Trilogy fluorometer, bbe-moldaenke AlgaeTorch, Hanna Instruments automatic titration system
- Participating in frequent water sampling and water quality monitoring including the preparation and counting of bacteria samples for the RI Department of Health
- Attended and helped organize outreach activities

URI Coastal Fellow

URI Watershed Watch, Linda Green

May 2009 - December 2009

- Worked in analytical laboratory and in the field developing a research project from May-August under the guidance of a mentor
- Prepared a scientific poster presenting the project at the university symposium

Skills attained from Fellowship:

- Knowledge of general lab procedures and instruments as well as safety protocol
- Familiarity with Turner Designs TD-700 and Trilogy fluorometers, methods for pH and alkalinity titrations, dishwashing procedures including acid baths and autoclave use
- Water quality monitoring and water sampling procedures
- Ability to work with mentors, other employees and volunteers
- Group collaboration, teamwork and leadership skills

Research Cruise Experience

R/V Thompson, February 12 – March 25, 2015

University of Hawai'i at Mānoa, Craig Smith – chief scientist

- Deployed and processed box corer and megacorer
- Conducted CTD casts
- Assisted in deployment of various oceanographic equipment

R/V Oceanus, June 21 - July 5, 2014

University of Hawai'i at Mānoa, Craig Smith – chief scientist

- Retrieved previously deployed landers
- Collected and preserved samples from bone and wood experimental substrates
- Conducted CTD casts and multicore deployments

R/V Oceanus, April 3-15, 2013

University of Hawai'i at Mānoa, Craig Smith – chief scientist

- Built experimental landers for whale and wood fall experiment to be deployed on cruise
- Deployed landers, conducted CTD casts, collected and preserved benthic samples from multicorer

R/V Endeavor, October 5-8, 2010

URI Graduate School of Oceanography, Anna Pfeiffer-Hebert – chief scientist

- Participated in watch shifts, deployment and retrieval of equipment
- Learned about tools used in the research project (ADCPs, CTDs, etc.)

Other Relevant Experience

Deep-Sea Biodiversity, Connectivity, and Ecosystem Function Course, July 20 – August 22, 2014

Friday Harbor Laboratories, WA – Dr. Craig Smith and Dr. Kenneth Halanych

- Learned about various aspects of deep-sea biology from world experts including Lisa Levin, Adrian Glover, Janet Voight and others.
- Conducted short research project utilizing deep-sea samples to determine the connectivity of a wood-boring bivalve along the WA and OR margin.

SOEST Open House Event, October 26-26, 2013

University of Hawai'i at Mānoa

- Participated in a college-wide outreach event by opening our lab to school children and members of the public to teach about Antarctic biodiversity and climate change utilizing research from our lab members.

Workshop to Standardize Megafaunal Taxonomy for Exploration

Contract Areas in the Clarion-Clipperton Fracture Zone, June 9-16, 2013

Deutsches Zentrum für Marine Biodiversitätsforschung, Wilhelmshaven, Germany

- Attended international workshop representing UK Seabed Resources Ltd. which has a claim in the Clarion-Clipperton region for which UH Manoa is contracted to conduct the ecological impact assessment required by the International Seabed Authority

Marine Invertebrate Zoology Course, June 21 – July 22, 2011

Friday Harbor Laboratories, WA - Dr. Jonathan Geller and Dr. Gustav Paulay

- Earned 9 credits over an intensive 5 week course which included several hours of lecture and lab time each day.

- Participated in 3 dredging trips aboard the R/V Centennial and other field trips around San Juan Island, WA gaining hands-on field experience

Certifications

- PADI Open Water SCUBA (2010)

Skills

- Proficient in office suite, experience with R, Primer, SAS, some use of MATLAB
- Extensive use of ImageJ for image analysis and identification/quantification of megafauna
- Good organizational skills, efficient worker, strong work ethic, passionate and motivated
- Able to work well both individually and with others

Oral Presentations

Ziegler, A. and Smith, C.R. **The influence of ice-rafted debris on megabenthic diversity and community structure in West Antarctic Peninsula (WAP) fjords.** Geological Society of America Annual Meeting. Vancouver, BC, Canada. October 20, 2014.

Poster Presentations

Ziegler, A., Reinhart, S., Guidone, M., Schollmeier, T., and Thornber, C. **Bloom-forming *Ulva* species overwinter primarily as fragments in Narragansett Bay, RI.** *Northeast Algal Society Meeting.* Schoodic Point, ME. (2012).

Ziegler, A. Green, L., and Herron, E. **Alternative water quality monitoring supplies ideal for volunteer programs.** *University of Rhode Island Coastal Fellows Program Symposium.* Kingston, RI. (2009).

Publications

Oczkowski, A., Thornber, C. S., Markham, E. E., Rossi, R., Ziegler, A., & Rinehart, S. (2015). Testing sample stability using four storage methods and the macroalgae *Ulva* and *Gracilaria*. *Limnology and Oceanography: Methods*, 13(1), 9-14.

Rinehart, S., Guidone, M., Ziegler, A., Schollmeier, T., & Thornber, C. (2014). Overwintering strategies of bloom-forming *Ulva* species in Narragansett Bay, Rhode Island, USA. *Botanica Marina*, 57(4), 337-341.

Ziegler, A. and Smith, C. (2014). The influence of ice-rafted debris on megabenthic diversity and community structure in West Antarctic Peninsula (WAP) fjords. Geological Society of America Abstracts with Programs. Vol. 46 No. 6 p 413.